Hydrologic Model Manager

Short Name	IWR-MAIN
Long Name	Water Demand Management Suite
Description	
Model Type	
Model Objectives	Forecasting desegregate municipal and industrial water demand and estimating impact of demand management measures
Agency _Office	Mr. Bill Davis, Planning and Management Consultants, Ltd., P.O. Box 1316, Carbondale IL 62901
Tech Contact	Mr. Bill Davis 618-549-2832, billd@pmcl.com
Model Structure	The IWR-MAIN Forecast Manager provides sectorally, spatially, and seasonally desegregate water use forecasts. Water use sectors are user defined and typically include residential, commercial, industrial, and public/unaccounted for water users. Water use forecasts are generated for each sector wtih user defined models. The IWR-MAIN Conservation Manager estimates sector water use from the end-use model which then permits the analysis of conservation savings over time. Benefit-cost analysis of conservation programs may be calculated.
Interception	
Groundwater	
Snowmelt	
Precipitation	
Evapo-transpiration	
Infiltration	
Model Paramters	Forecasting model parameters are user-defined. Conservation model parameters include mechanical efficiency, saturation, intensity of use, and presence of end uses. Most conservation parameters have default values that may be modified for local conditions.
Spatial Scale	User-defined, e.g, county, service area, pressure zone, etc.
Temporal Scale	User-defined, any years from 1950 to 2100.
Input Requirements	Inputs include base year and projected units for each water use sector (e.g., housing, employment). Base year and future values of any variables specified for sector forecasting models must also be input. These will vary depending upon the user-defined models. Description of active conservtation implementation conditions. Utility and conservationprogram costs for benefit cost analysis.
Computer Requirements	Windows95, Windows98, or WindowsNT 4.0 or higher
Model Output	Reports and graphs may be generated in numerous formats (e.g., annual or monthly forecasts; total, per day, or per unit use; in gallons, K gallons, M-gallons, hundred cubic feet, or acre-feet; with and without conservation). Outputs maybe generated and printed in report or graph format, or exported to HTML,xls, or txt formats.
Parameter Estimatn Model Calibrtn	The Forecast Manager and Conservation Manager each have autocalibration features.
Model Testing Verification	

Model Sensitivity	The Forecast Manager includes options for conducting sensitivity analysis on the estimated water demand forecast.
Model Reliabiity	The Forecast Manager includes options for calculating statistical uncertainty bounds for the estimated water demand forecast.
Model Application	See www.pmcl.com for more information.
Documentation	: IWR-MAIN Water Demand Management Suite User's Manual is provided with the software.
Other Comments	Training is available. Strengths: The IWR-MAIN System may be used for system planning and conservation evaluation. Weaknesses: Significant socioeconomic data inputs may be required to properly reflect water use characteristics of a study area.
Date of Submission	8/10/1999 2:37:26 PM
Developer	
Technical Contact	
Contact Organization	